CLAIMS

1. A method for producing a perovskite-type composite oxide, which comprises the steps of:

preparing a precursor of the perovskite-type composite oxide by mixing at least organometal salts of elementary components constituting the perovskite-type composite oxide, and

heat-treating the precursor of the perovskite-type composite oxide.

2. The method for producing a perovskite-type composite oxide according to claim 1, wherein, in the preparation step, the precursor of the perovskite-type composite oxide is prepared by mixing one or more organometal salts of part of the elementary components constituting the perovskite-type composite oxide with the other elementary components.

3. The method for producing a perovskite-type composite oxide according to claim 2, wherein the other elementary components is prepared as alkoxides of the respective elements.

4. The method for producing a perovskite-type composite oxide according to claim 2, wherein the other elementary components is prepared as a coprecipitate of salts of the respective elements or a citrate complex of the

respective elements.

5. The method for producing a perovskite-type composite oxide according to claim 2, wherein the part of the elementary components is one or more noble metals.

6. The method for producing a perovskite-type composite oxide according to claim 1, wherein the organometal salts of the elementary components are organic carboxylic acid salts of the elementary components and/or a metal complex of the elementary components including at least one selected from the group consisting of β-diketone compounds, β-ketoester compounds and β-dicarboxylic ester compounds.

7. The method for producing a perovskite-type composite oxide according to claim 1, wherein the perovskite-type composite oxide is a perovskite-type composite oxide represented by the following general formula (1):

$$ABMO_3 \quad (1)$$

wherein A represents at least one element selected from rare-earth elements, alkaline earth metals, and Ag; B represents at least one element selected from Al and transition metals excluding platinum group elements and rare-earth elements; and M represents one or more platinum group elements.